Name _____ Hour ___ Prompt #3

Alicia is selling bracelets to raise money for a local charity. She raises $25 for each box of bracelets that she sells. Her goal is to raise $500.

Alicia has already sold 3 boxes of bracelets.

Part A

Write an equation that can be used to determine how many more boxes Alicia must sell to meet her goal. Be sure to define the variable in your equation.

Define the variable Let b represent how many more boxes Alicia must sell to meet her goal.

Equation 25b + 75 = 500

Part B

Each box contains 12 bracelets.

How many more individual bracelets will Alicia have to sell to meet her goal?

Show All Work

$$25b + 75 = 500$$

$$25b + 75 - 75 = 500 - 75$$

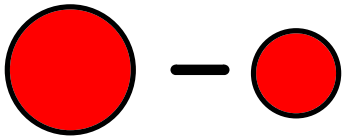
$$\frac{25b}{25} = \frac{425}{25}$$

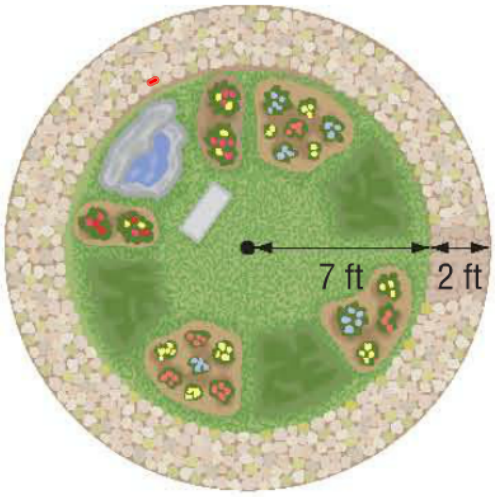
$$b = 17 \text{ boxes}$$

$17 \times 12 = 204$ bracelets

Answer 204 **bracelets**

4 Mrs. Gowdy created a 2-foot wide garden path around a circular garden. The radius of the garden is 7 feet. What is the area of the path around the garden to the nearest tenth?





Part 1

Show All Work

Big Circle:

$A = \pi r^2$

$A = \pi 9^2$

$A = 81\pi \text{ ft}^2$

Small Circle:

$A = \pi r^2$

$A = \pi 7^2$

$A = 49\pi \text{ ft}^2$

$254.5 - 153.9 = 100.6 \text{ ft}^2$

or

$81\pi - 49\pi = 32\pi = 100.5 \text{ ft}^2$

Answer 100.5 **square feet**

Part 2

Mrs. Gowdy wants to cover the path in stones. If it takes 1 bag of stones for every 5 square feet of the path, how many bags of stones will be needed to cover the garden path?

Show All Work

$100.5 \div 5 = 20.1 \text{ bags}$

Answer 21 **bags**